Below are the problem statements and its respective solutions.

1. Total revenue per customer.
2. Average order value per product category.
3. Total number of orders by customer demographics (e.g., age, location).
4. Average customer rating per product.
5. Identify customers who have the highest potential for up-sell or cross-sell opportunities based on their past purchase behavior (e.g., frequent purchasers and high-value customers).

```sql
-- Total revenue per customer.
SELECT
    c.name AS 'Customer Name',
    SUM(total_amount) AS 'Total Revenu'
FROM
    orders o
        JOIN
    customers c ON o.customer_id = c.customer_id
GROUP BY c.name
ORDER BY SUM(total_amount) DESC;
```

Customer Name	Total Revenu
Michael Brown	1650.00
John Doe	1400.00
Emily Davis	1350.00
Olivia Martinez	1350.00
Amy White	1070.00
Jane Smith	1050.00
James Wilson	870.00
Robert Clark	800.00
David Lee	650.00
Susan Taylor	650.00
Laura Walker	500.00

```sql
-- Average order value per product category.
SELECT
    p.category AS 'Product Category',
    ROUND(AVG(total_amount), 2) AS 'Avg order value'
FROM
    orders o
        JOIN
    order_items oi ON o.order_id = oi.order_id
        JOIN
    products p ON oi.product_id = p.product_id
GROUP BY category
ORDER BY AVG(total_amount) DESC;
```

Product Category	Avg order value
Appliances	461.11
Electronics	368.82
Furniture	360.00
Accessories	350.00
Clothing	175.00

```sql
-- Total number of orders by customer demographics (e.g., age, location).

SELECT
    (TIMESTAMPDIFF(YEAR,
        c.birthdate,
        CURRENT_DATE)) AS 'Customer Age',
    c.location AS 'Customer Location',
    COUNT(order_id) AS 'Total Orders'
FROM
    customers c
        LEFT JOIN
    orders o ON c.customer_id = o.customer_id
GROUP BY c.location , (TIMESTAMPDIFF(YEAR,
    c.birthdate,
    CURRENT_DATE));
```

Customer Age	Customer Location	Total Orders
34	New York	4
39	Los Angeles	3
32	Chicago	3
36	San Francisco	3
34	Miami	3
37	Boston	3
34	Austin	3
32	Los Angeles	2

```sql
-- Average customer rating per product.
SELECT
    *
FROM
    customer_reviews;
SELECT
    product_name AS 'Product',
    ROUND(AVG(rating), 1) AS 'Average rating'
FROM
    products p
        JOIN
    customer_reviews cr ON p.product_id = cr.product_id
GROUP BY product_name
ORDER BY AVG(rating) DESC;
```

Product	Average rating
Phone Case	5.0
Smartphone	5.0
Table Lamp	5.0
Refrigerator	5.0
Laser Printer	5.0
Blender	5.0
Smart Speaker	5.0
Smart TV	5.0

```sql
SELECT
    c.name AS 'Customer Name',
    COUNT(o.order_id) AS 'Total Orders',
    SUM(o.total_amount) AS 'Total Spendings',
    TIMESTAMPDIFF(YEAR,
        c.signup_date,
        CURRENT_DATE) AS 'Customer Age in Years'
FROM
    orders o
        LEFT JOIN
    customers c ON o.customer_id = c.customer_id
GROUP BY c.name , c.signup_date
ORDER BY COUNT(order_id) DESC , SUM(total_amount) DESC , TIMESTAMPDIFF(YEAR,
    c.signup_date,
    CURRENT_DATE) DESC
LIMIT 5;
```

Customer Name	Total Orders	Total Spendings	Customer Age in Years
John Doe	4	1400.00	4
Michael Brown	3	1650.00	4
Olivia Martinez	3	1350.00	4
Emily Davis	3	1350.00	3
Amy White	3	1070.00	3